BOOK REVIEW

WILHELM BARTHLOTT, STEFAN POREMBSKI, RÜDIGER SEINE, AND INGE THEISEN. 2007. **The Curious World of Carnivorous Plants, a Comprehensive Guide to their Biology and Cultivation.** (ISBN 978-0881927924, hbk.). Timber Press Inc., 133 S.W. Second Avenue, Suite 450, Portland, Oregon 97204-3527, U.S.A. (**Orders:** www.timberpress.com, mail@timberpress.com, 800-327-5680, 503-227-3070 fax). $39.95, 224 pp., 158 color and black/white illustrations, 2 maps, 7 1/2" × 10 1/4".

Contents:

Sundews and waterwheels and corkscrews! Oh, my! These innocently named plants harbor deep dark secrets, described as "against the order of nature as willed by God" by Carl Linnaeus in late 1700s. Set apart from "normal" plants, these devious beauties use murderous means to obtain their nutrients, utilizing specialized structures to attract, trap, and subsequently digest otherwise unknowing members of the animal kingdom. The gory secrets behind this carnivorous comportment comprise the topic of this book, initially released by the authors in the German language in 2004, then re-released in an updated and revised English-language edition in 2007.

In chapters 2-4, the authors identify the open, low-nutrient, and moist sites that characterize carnivorous plant habitat and their distribution of greatest diversity between 20°N and 40°S latitude. Chapters 5-10 discuss the generalized process by which these plants obtain their nutrients, including attraction strategies (such as optical, tactile, and olfactory mechanisms), trapping mechanisms (adhesive, snapping, snaring, or suction), digestion, and types of prey. Belief in the completely dark nature of these plants is dispelled in chapters 8 and 9 when the notion of carnivorous plants as commensals is introduced: plants providing habitats for animals without using them as a nutrient source. Carnivorous plants are not unique as facilitators of animal death, and the animal-killing capabilities of "normal" plants (however unintentional the outcome of their herbivory defense tactics) are briefly discussed. Chapters 11 and 12 comprise the key sections for any carnivorous-plant grower's reference, providing advice on a range of topics, from what to look for when picking out plants, to the basic requirements to grow and maintain them, to the species best suited to beginners.

Lastly, chapters 13 through 24 take the reader deeper into the major groups of carnivorous plants, discussing monocot and dicot flowering plant families (e.g. Bromeliaceae and Lentibulariaceae, respectively) and those groups of plants we don't commonly associate with carnivory, such as the liverworts and fungi (the former whose candidacy as a carnivore is contested, as their prey are protozoans). These chapters include preliminary discussions of each family, what it is related to, and what portion of its members are carnivores. Also included are sections for each genus where distribution and habitat, morphological features, trapping mechanism, digestion and prey, selected species, and cultivation are mentioned. Varying degrees of carnivory are explored, from life-long obligate carnivores (*Byblis gigantea*: Byblidaceae) to others that only employ carnivory during part of their life cycle (*Drosera caduca*: Droseraceae) or during certain seasons (*Pinguicula*: Lentibulariaceae). Carnivory across habit is noted in epiphytes (Bromeliaceae), terrestrial plants (Sarraceniaceae), lianas that straddle between the two (*Triphyophyllum*: Dioncophyllaceae), and aquatic plants (some Lentibulariaceae). Interesting histories are related, such as the fact that it was Schnepf's studies of the mucilaginous glands of the genus *Drosophyllum* which led him to elucidate the function of the Golgi apparatus, which had been discovered 62 years earlier by Camillo Golgi.

This book is written in a popular science style, backed with scientific references and botanical knowledge; it is an incredible assemblage of facts, from the ecology and physiology of carnivorous plants, to the history of their names and uses, to the practical and hands-on act of welcoming these plants into one's own horticultural collection. This book will enchant any reader and is highly recommended for anybody with any interest whatsoever in cultivation of strange and unusual plants.—*Tiana F. Franklin, Botanical Research Institute of Texas, 500 East 4th Street, Fort Worth, Texas 76102-4025, U.S.A.*